

## WORLD WILDLIFE FUND AUSTRALIA PROGRESS REPORT

### **A. Project No and Title**

P144: Fire and Invertebrate Conservation in Mallee-Heath Remnants.

### **B. Report Type**

Progress Report No. 1. 18 December 1989. Year 1 of three year project.

### **C. Authors of Report**

Dr Gordon R. Friend and Mr Graham P. Hall

### **D. Collaborators**

Australian National Insect Collection, Canberra.  
Western Australian Museum, Perth.

### **E. Objectives of Project**

- a) To examine the consequences of instigating deliberate burning for ecological management in remnant semi-arid vegetation by studying components of the fauna which are likely to show a range of responses to fire.
- b) Use these data to develop general principles and policies for predictive fire management in such ecosystems.

### **F. Research Methodology**

- a) Studies are conducted in the Stirling Range National Park.
- b) A number of fires over a range of intensities and seasons is planned in 1990-1991.
- c) Regular pre-and post-fire sampling using pitfall traps, sweeping and beating and interception traps over 3 years.
- d) Trap catches of Coleoptera, Arachnida, Hymenoptera, Diptera, Hemiptera and Orthoptera are separated and identified to lowest taxonomic level possible. The remainder of the catches are stored unsorted.

### **G. Summary of Work to Date**

- a) Permanent trapping grids were selected and established in a range of sites with different fire histories during June 1989.

- b) Trapping was conducted in June, August, October and December 1989.
- c) Sorting and identification of the June and August catches has been completed. Sorting of the material caught in October is progressing.
- d) Measurement of habitat attributes has commenced.

**H. Preliminary Recommendations for Management**

This project is part of a multidisciplinary study on fire behaviour and fire effects on the biota, and as such has the potential to provide managers with data on which to formulate ecologically sound fire management policies.

However, it is too early in the project to make management recommendations.

**I. Work to be Completed**

- a) Continue, and complete, pre-fire sampling.
- b) On-going sorting and identification of invertebrates from trapping occasions.
- c) Complete habitat analysis.

**J. Difficulties Encountered**

Nil.

**K. Budget Report**

World Wildlife Funding as at 14 December 1989.

	Budget	Expenditure
Salaries	10 650	8 330
Equipment	300	290
Plant	750	711
Administration & Publication	450	0
Total	<u>\$12 150</u>	<u>\$9 331</u>

Resources from Department of Conservation and Land Management as at 14 December 1989.

	Budget	Expenditure
Salaries and Travel	7 500	7 896
Equipment	750	1 278
Plant	1 800	854
Administration, Computing & Publication	2250	1350
Total	<u>\$12 300</u>	<u>\$11 378</u>

L. Reports or Publications Arising

Nil.